



## *results of* **BLAST**

### **BLASTP 2.2.6 [Apr-09-2003]**

#### **Reference:**

Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402.

RID: 1056307209-022108-8672

#### **Query=**

(27 letters)

**Database:** All non-redundant GenBank CDS  
translations+PDB+SwissProt+PIR+PRF

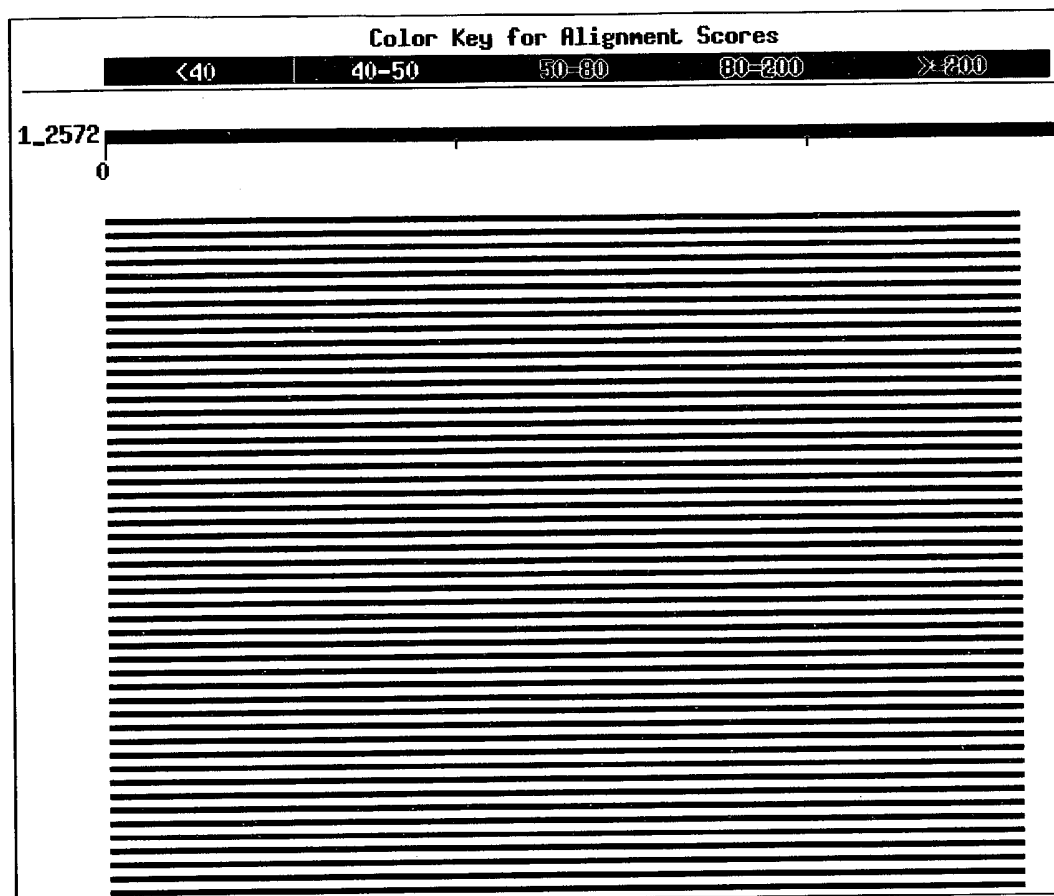
1,458,236 sequences; 468,339,122 total letters

If you have any problems or questions with the results of this search  
please refer to the **BLAST FAQs**

Taxonomy reports

### **Distribution of 96 Blast Hits on the Query Sequence**

Mouse-over to show defline and scores. Click to show alignments



### Related Structures

		Score	E	
Sequences producing significant alignments:		(bits)	Value	
gi 431446 gb AAA31468.1	surfactant protein A	61	4e-09	
gi 131413 sp P12842 PSPA_RABIT	Pulmonary surfactant-associa...	61	4e-09	
gi 382753 prf  1901176A	surfactant protein A	61	4e-09	
gi 1709872 sp P49874 PSPA_PIG	Pulmonary surfactant-associat...	60	7e-09	
gi 444733 prf  1908183A	surfactant-associated protein SP-A	60	8e-09	
gi 31543691 ref NP_075623.2	surfactant associated protein ...	60	8e-09	L
gi 464483 sp P35242 PSPA_MOUSE	Pulmonary surfactant-associa...	60	8e-09	L
gi 6601484 gb AAF18995.1 AF211856_1	pulmonary surfactant pr...	60	1e-08	
gi 8918631 dbj BAA97976.1	pulmonary surfactant protein A [...	60	1e-08	
gi 71967 pir  LNHUPS	pulmonary surfactant protein A precurs...	59	1e-08	
gi 27501930 gb AAO13490.1	surfactant, pulmonary-associated...	59	1e-08	
gi 190672 gb AAA36520.1	pulmonary surfactant-associated pr...	59	1e-08	
gi 71969 pir  LNHUP1	pulmonary surfactant protein A precurs...	59	1e-08	
gi 15788236 gb AAL07690.1 AF400580_1	pulmonary surfactant-a...	59	1e-08	
gi 27501922 gb AAO13486.1	surfactant, pulmonary-associated...	59	2e-08	
gi 13346504 ref NP_005402.2	surfactant, pulmonary-associat...	59	2e-08	L
gi 131412 sp P07714 PSPA_HUMAN	Pulmonary surfactant-associa...	59	2e-08	L
gi 1709873 sp P08427 PSPA_RAT	Pulmonary surfactant-associat...	59	2e-08	L
gi 206459 gb AAA41972.1	prepulmonary surfactant-associated...	59	2e-08	L
gi 1172693 sp P06908 PSPA_CANEA	Pulmonary surfactant-associ...	58	3e-08	

gi 71970 pir  LNDGPS	pulmonary surfactant protein A precurs...	58	3e-08	
gi 8394337 ref NP_059025.1	pulmonary surfactant-associated...	58	4e-08	L
gi 57839 emb CAA31574.1	pulmonary surfactant protein A (AA...	58	4e-08	L
gi 13346506 ref NP_008857.1	surfactant, pulmonary-associat...	58	4e-08	L
gi 1709871 sp P50403 PSPA CAVPO	Pulmonary surfactant-associ...	57	6e-08	
gi 6782434 gb AAF28384.1 AF133668_1	lung surfactant protein...	57	6e-08	
gi 20070752 gb AAH26229.1	Unknown (protein for MGC:22153) ...	56	2e-07	
gi 27805091 gb AAO22991.1	surfactant, pulmonary-associated...	48	4e-05	
gi 21361549 ref NP_003010.2	surfactant, pulmonary-associat...	48	4e-05	L
gi 464486 sp P35247 PSPD HUMAN	Pulmonary surfactant-associa...	48	4e-05	L
gi 34767 emb CAA46152.1	lung surfactant protein D [Homo sa...	48	4e-05	L
gi 6573319 pdb 1B08 A	Chain A, Lung Surfactant Protein D (S...	47	1e-04	S
gi 6677921 ref NP_033186.1	surfactant associated protein D...	46	2e-04	L
gi 7949133 ref NP_037010.1	surfactant, pulmonary-associate...	46	2e-04	L
gi 27923966 sp P42916 CL43 BOVIN	Collectin-43 precursor (CL...	45	3e-04	L
gi 15420996 gb AAK97540.1 AF411083_1	surfactant protein A p...	45	4e-04	
gi 499385 emb CAA53511.1	collectin-43 [Bos taurus]	45	4e-04	L
gi 1083017 pir  A53570	collectin-43 - bovine	45	5e-04	
gi 29570599 emb CAD69922.1	surfactant protein D [Bos taurus]	44	5e-04	L
gi 423283 pir  S33603	surfactant protein D - bovine	44	5e-04	
gi 30794342 ref NP_851369.1	surfactant, pulmonary-associat...	44	5e-04	L
gi 21693526 gb AAM75337.1 AF512356_1	SFTPD [Macaca mulatta]	44	5e-04	
gi 6760482 gb AAF22145.2 AF132496_1	lung surfactant protein...	44	6e-04	
gi 395268 emb CAA50665.1	conglutinin [Bos taurus]	42	0.003	L
gi 461774 sp P23805 CONG BOVIN	CONGLUTININ PRECURSOR >gi 34...	42	0.003	L
gi 31982388 ref NP_783630.2	conglutinin 1 [Bos taurus] >gi...	42	0.003	L
gi 27923754 sp Q8MHZ9 CL46 BOVIN	Collectin-46 precursor (CL...	40	0.008	L
gi 227513 prf  1705239A	mannan binding protein	37	0.068	
gi 5566370 gb AAD45377.1 AF164576_1	mannose-binding lectin ...	37	0.075	
gi 126677 sp P08661 MABC RAT	Mannose-binding protein C prec...	37	0.078	L
gi 12083669 ref NP_073195.1	mannose-binding protein C (liv...	37	0.096	L
gi 1449044 gb AAB48071.1	mannose-binding protein C	37	0.12	
gi 6754656 ref NP_034906.1	mannose binding lectin, serum (...)	36	0.13	L
gi 233018 gb AAB19343.1	mannose-binding protein C; MBP-C [...]	36	0.13	L
gi 5453619 ref NP_006429.1	collectin sub-family member 10;...	36	0.18	L
gi 27806549 ref NP_776532.1	mannose-binding lectin (protei...	36	0.18	L
gi 27718903 ref XP_235331.1	similar to collectin sub-famil...	35	0.22	L
gi 27734138 ref NP_775598.1	collectin liver 1; collectin-L...	35	0.23	L
gi 27530341 dbj BAC53954.1	collectin-L1 [Mus musculus]	35	0.23	L
gi 14030460 gb AAK52907.1 AF360991_1	mannan-binding lectin ...	35	0.26	
gi 4557739 ref NP_000233.1	soluble mannose-binding lectin ...	35	0.26	L
gi 1449042 gb AAB48070.1	mannose-binding protein A	35	0.27	
gi 5911796 emb CAB56121.1	mannose-binding lectin [Homo sap...	35	0.28	
gi 5911794 emb CAB56045.1	mannose-binding lectin [Homo sap...	35	0.29	
gi 27718901 ref XP_235330.1	similar to collectin sub-famil...	35	0.31	L
gi 5911809 emb CAB56124.1	mannose-binding lectin [Homo sap...	35	0.33	
gi 22219167 pdb 1KZA 1	Chain 1, Complex Of Mbp-C And Man-A1...	35	0.34	S
gi 6729734 pdb 1BV4 A	Chain A, Apo-Mannose-Binding Protein...	35	0.38	S
gi 1421615 pdb 1RDI 1	Chain 1, Mannose-Binding Protein, Sub...	35	0.41	S

<a href="#">gi 1311344 pdb 1HUP </a>	Alpha-Helical Coiled-Coil Mol_id: 1; ...	35	0.46	<b>S</b>
<a href="#">gi 4502253 ref NP_001172.1 </a>	asialoglycoprotein receptor 2 i...	33	0.86	<b>L</b>
<a href="#">gi 3318890 pdb 1BCJ 1</a>	Chain 1, Mannose-Binding Protein-A Mu...	33	0.92	<b>S</b>
<a href="#">gi 3318887 pdb 1BCH 1</a>	Chain 1, Mannose-Binding Protein-A Mu...	33	0.95	<b>S</b>
<a href="#">gi 3660143 pdb 1BUU A</a>	Chain A, One Ho3+ Form Of Rat Mannose...	33	1.0	<b>S</b>
<a href="#">gi 18426877 ref NP_550436.1 </a>	asialoglycoprotein receptor 2 ...	33	1.1	<b>L</b>
<a href="#">gi 3420792 gb AAC31936.1 </a>	mannose-binding protein; MBP [Rat...	33	1.1	
<a href="#">gi 18426875 ref NP_550435.1 </a>	asialoglycoprotein receptor 2 ...	33	1.2	<b>L</b>
<a href="#">gi 22219120 pdb 1KX0 A</a>	Chain A, Rat Mannose Protein A (H189...	33	1.2	<b>S</b>
<a href="#">gi 126675 sp P19999 MABA_RAT</a>	Mannose-binding protein A prec...	33	1.2	
<a href="#">gi 1431805 pdb 1AFA 1</a>	Chain 1, C-Type Lectin, Calcium-Bindi...	33	1.2	<b>S</b>
<a href="#">gi 6981188 ref NP_036731.1 </a>	mannose binding lectin 2, prote...	33	1.2	<b>L</b>
<a href="#">gi 13128972 ref NP_076932.1 </a>	hypothetical protein MGC3279 s...	33	1.2	<b>L</b>
<a href="#">gi 996129 pdb 1RTM 1</a>	Chain 1, Mannose-Binding Protein A (Cl...	33	1.3	<b>S</b>
<a href="#">gi 22219117 pdb 1KWZ A</a>	Chain A, Rat Mannose Protein A (H189...	33	1.4	<b>S</b>
<a href="#">gi 1942246 pdb 2KMB 1</a>	Chain 1, Complex Of 3'-Neuac-Lewis-X ...	33	1.6	<b>S</b>
<a href="#">gi 230180 pdb 1MSB A</a>	Chain A, Mannose Binding Protein A (Le...	33	1.8	<b>S</b>
<a href="#">gi 27717135 ref XP_234024.1 </a>	similar to hypothetical protei...	32	1.9	<b>L</b>
<a href="#">gi 10120821 pdb 1FIF A</a>	Chain A, N-Acetylgalactosamine-Selec...	32	2.4	<b>S</b>
<a href="#">gi 12833584 dbj BAB22581.1 </a>	unnamed protein product [Mus mu...	32	3.5	<b>L</b>
<a href="#">gi 31455215 gb AAH09951.1 </a>	MGC3279 protein [Homo sapiens]	32	3.6	
<a href="#">gi 13898380 gb AAK48712.1 AF307972_1</a>	E-selectin [Equus caba...	31	4.4	
<a href="#">gi 13898378 gb AAK48711.1 AF307971_1</a>	E-selectin [Ovis aries]	31	5.2	
<a href="#">gi 6754654 ref NP_034905.1 </a>	mannose binding lectin, liver (...)	31	5.6	<b>L</b>
<a href="#">gi 28520762 ref XP_283054.1 </a>	RIKEN cDNA 1010001H16 [Mus mus...	30	8.7	<b>L</b>
<a href="#">gi 27806407 ref NP_776606.1 </a>	selectin E [endothelial adhesi...	30	9.0	<b>L</b>
<a href="#">gi 87597 pir A30359</a>	P-selectin precursor - human	30	10.0	

## Alignments

Get selected sequences

Select all

Deselect all

☐ >[gi|431446|gb|AAA31468.1|](#) surfactant protein A  
Length = 247

Score = 61.2 bits (147), Expect = 4e-09  
Identities = 24/27 (88%), Positives = 25/27 (92%)

Query: 1 EKCVMYTDGKWNDRNCLQSRLAICEF 27  
EKCVMYTDGKWND+NCLQ RL ICEF  
Sbjct: 221 EKCVMYTDGKWNDRNCLQYRLVICEF 247

☐ >[gi|131413|sp|P12842|PSPA\\_RABIT](#) Pulmonary surfactant-associated protein A precursor (PSAP)  
[gi|71971|pir|LNRBPS](#) pulmonary surfactant protein A precursor - rabbit  
[gi|165706|gb|AAA31465.1|](#) apoprotein of surfactant  
Length = 247

Score = 61.2 bits (147), Expect = 4e-09  
Identities = 24/27 (88%), Positives = 25/27 (92%)

Query: 1 EKCVELMYTDGKWDRNCLQSRLAICEF 27  
EKCVELMYTDGKWDR+NCLQ RL ICEF  
Sbjct: 221 EKCVELMYTDGKWDRNCLQYRLVICEF 247

☐ >gi|382753|prf||1901176A surfactant protein A  
Length = 247

Score = 61.2 bits (147), Expect = 4e-09  
Identities = 24/27 (88%), Positives = 25/27 (92%)

Query: 1 EKCVELMYTDGKWDRNCLQSRLAICEF 27  
EKCVELMYTDGKWDR+NCLQ RL ICEF  
Sbjct: 221 EKCVELMYTDGKWDRNCLQYRLVICEF 247

☐ >gi|1709872|sp|P49874|PSPA\_PIG Pulmonary surfactant-associated protein A precursor  
(PSAP)  
gi|762837|gb|AAA88403.1| pulmonary surfactant-associated protein A  
Length = 249

Score = 60.5 bits (145), Expect = 7e-09  
Identities = 24/27 (88%), Positives = 25/27 (92%)

Query: 1 EKCVELMYTDGKWDRNCLQSRLAICEF 27  
EKCVELMYTDG+WNDRNC Q RL AICEF  
Sbjct: 223 EKCVELMYTDGQWDRNCCQYRLAICEF 249

☐ >gi|444733|prf||1908183A surfactant-associated protein SP-A  
Length = 248

Score = 60.5 bits (145), Expect = 8e-09  
Identities = 24/27 (88%), Positives = 25/27 (92%)

Query: 1 EKCVELMYTDGKWDRNCLQSRLAICEF 27  
EKCVELMYTDGKWDR+ CLQ RL AICEF  
Sbjct: 222 EKCVELMYTDGKWDRNCLQYRLAICEF 248

☐ >gi|31543691|ref|NP\_075623.2| ☒ surfactant associated protein A; surfactant pulmonary  
protein A1 [Mus musculus]  
gi|12835916|dbj|BAB23416.1| ☒ unnamed protein product [Mus musculus]  
gi|12836233|dbj|BAB23565.1| ☒ unnamed protein product [Mus musculus]  
gi|12847389|dbj|BAB27551.1| ☒ unnamed protein product [Mus musculus]  
Length = 248

Score = 60.5 bits (145), Expect = 8e-09  
Identities = 24/27 (88%), Positives = 25/27 (92%)

Query: 1 EKCVELMYTDGKWNDNRNCLQSRLAICEF 27  
 EKCVELMYTDGKWND+ CLQ RLAICEF  
 Sbjct: 222 EKCVELMYTDGKWNDKGCLQYRLAICEF 248

☐ >gi|464483|sp|P35242|PSPA\_MOUSE ☒ Pulmonary surfactant-associated protein A precursor (PSAP)  
 gi|477343|pir||A48853 pulmonary surfactant-associated protein SP-A - mouse  
 gi|260453|gb|AAB24274.1| ☒ SP-A [Mus sp.]  
 Length = 248

Score = 60.5 bits (145), Expect = 8e-09  
 Identities = 24/27 (88%), Positives = 25/27 (92%)

Query: 1 EKCVELMYTDGKWNDNRNCLQSRLAICEF 27  
 EKCVELMYTDGKWND+ CLQ RLAICEF  
 Sbjct: 222 EKCVELMYTDGKWNDKGCLQYRLAICEF 248

☐ >gi|6601484|gb|AAF18995.1|AF211856\_1 pulmonary surfactant protein A [Ovis aries]  
 gi|6901646|gb|AAF31148.1|AF076633\_1 pulmonary surfactant-associated protein A [Ovis aries]  
 Length = 248

Score = 59.7 bits (143), Expect = 1e-08  
 Identities = 23/27 (85%), Positives = 26/27 (96%)

Query: 1 EKCVELMYTDGKWNDNRNCLQSRLAICEF 27  
 EKCVELMYTDG+WND+NCLQ RLAICEF  
 Sbjct: 222 EKCVELMYTDGQWNDKNCLQYRLAICEF 248

☐ >gi|8918631|dbj|BAA97976.1| pulmonary surfactant protein A [Equus caballus]  
 Length = 248

Score = 59.7 bits (143), Expect = 1e-08  
 Identities = 24/27 (88%), Positives = 26/27 (96%)

Query: 1 EKCVELMYTDGKWNDNRNCLQSRLAICEF 27  
 EKCVELMYTDG+WND+CLQ RLAICEF  
 Sbjct: 222 EKCVELMYTDGQWNDNRNCLQYRLAICEF 248

☐ >gi|71967|pir||LNHUPS pulmonary surfactant protein A precursor (genomic clone) -  
 gi|224709|prf||1111285A apoprotein, pulmonary surfactant  
 Length = 248

Score = 59.3 bits (142), Expect = 1e-08  
 Identities = 23/27 (85%), Positives = 25/27 (92%)

Query: 1 EKCVELMYTDGKWNDNRNCLQSRLAICEF 27  
 E+CVEMMYTDG+WNDNRNCL SRL ICEF  
 Sbjct: 222 EQCVEMMYTDGQWNDNRNCLYSRLTICEF 248

☐ >gi|27501930|gb|AA013490.1| surfactant, pulmonary-associated protein A2 [Homo sa  
Length = 248

Score = 59.3 bits (142), Expect = 1e-08  
Identities = 23/27 (85%), Positives = 25/27 (92%)

Query: 1 EKCVELMYTDGKWDRNCLQSRLAICEF 27  
E+CVEMMYTDG+WDRNCL SRL ICEF  
Sbjct: 222 EQCVEMMYTDGQWDRNCLYSRLTICEF 248

☐ >gi|190672|gb|AAA36520.1| pulmonary surfactant-associated protein  
Length = 248

Score = 59.3 bits (142), Expect = 1e-08  
Identities = 23/27 (85%), Positives = 25/27 (92%)

Query: 1 EKCVELMYTDGKWDRNCLQSRLAICEF 27  
E+CVEMMYTDG+WDRNCL SRL ICEF  
Sbjct: 222 EQCVEMMYTDGQWDRNCLYSRLTICEF 248

☐ >gi|71969|pir||LNHUP1 pulmonary surfactant protein A precursor (clone 1A) - huma  
Length = 248

Score = 59.3 bits (142), Expect = 1e-08  
Identities = 23/27 (85%), Positives = 25/27 (92%)

Query: 1 EKCVELMYTDGKWDRNCLQSRLAICEF 27  
E+CVEMMYTDG+WDRNCL SRL ICEF  
Sbjct: 222 EQCVEMMYTDGQWDRNCLYSRLTICEF 248

☐ >gi|15788236|gb|AAL07690.1|AF400580.1 pulmonary surfactant-associated protein A  
Length = 248

Score = 59.3 bits (142), Expect = 1e-08  
Identities = 24/27 (88%), Positives = 26/27 (96%)

Query: 1 EKCVELMYTDGKWDRNCLQSRLAICEF 27  
EKCVELMYTDG+WDR+CLQ RL AICEF  
Sbjct: 222 EKCVELMYTDGQWDRSCLQYRLAICEF 248

☐ >gi|27501922|gb|AA013486.1| surfactant, pulmonary-associated protein A1 [Homo sa  
Length = 248

Score = 59.3 bits (142), Expect = 2e-08  
Identities = 23/27 (85%), Positives = 25/27 (92%)

Query: 1 EKCVELMYTDGKWDRNCLQSRLAICEF 27  
E+CVEMMYTDG+WDRNCL SRL ICEF

Sbjct: 222 EQCVEMYTDGQWNRNCLYSRLTICEF 248

☐ >gi|13346504|ref|NP\_005402.2| **L** surfactant, pulmonary-associated protein A1; pulmonary surfactant-associated protein [Homo sapiens]  
 gi|190565|gb|AAA36510.1| **L** pulmonary surfactant apoprotein precursor  
 Length = 248

Score = 59.3 bits (142), Expect = 2e-08  
 Identities = 23/27 (85%), Positives = 25/27 (92%)

Query: 1 EKCVMYTDGKWNRNCLQSRLAICEF 27  
 E+CVEMYTDG+WNRNCL SRL ICEF  
 Sbjct: 222 EQCVEMYTDGQWNRNCLYSRLTICEF 248

☐ >gi|131412|sp|P07714|PSPA\_HUMAN **L** Pulmonary surfactant-associated protein A precursor (PSAP) (Alveolar proteinosis protein) (35 kDa pulmonary surfactant-associated protein)  
 gi|71968|pir||LNHUP6 pulmonary surfactant protein A precursor (clone 6A) - human  
 gi|190670|gb|AAA60211.1| **L** pulmonary surfactant-associated protein  
 Length = 248

Score = 59.3 bits (142), Expect = 2e-08  
 Identities = 23/27 (85%), Positives = 25/27 (92%)

Query: 1 EKCVMYTDGKWNRNCLQSRLAICEF 27  
 E+CVEMYTDG+WNRNCL SRL ICEF  
 Sbjct: 222 EQCVEMYTDGQWNRNCLYSRLTICEF 248

☐ >gi|1709873|sp|P08427|PSPA\_RAT Pulmonary surfactant-associated protein A precursor (PSAP)  
 gi|71972|pir||LNRTPS pulmonary surfactant protein A precursor - rat.  
 gi|1147798|gb|AAA85516.1| **L** surfactant protein-A  
 gi|1585793|prf||2202163A surfactant protein A  
 Length = 248

Score = 58.9 bits (141), Expect = 2e-08  
 Identities = 23/27 (85%), Positives = 24/27 (88%)

Query: 1 EKCVMYTDGKWNRNCLQSRLAICEF 27  
 EKCVMYTDG WNR CLQ RLA+CEF  
 Sbjct: 222 EKCVMYTDGTWNRGCLQYRLAVCEF 248

☐ >gi|206459|gb|AAA41972.1| **L** prepulmonary surfactant-associated protein A  
 Length = 257

Score = 58.9 bits (141), Expect = 2e-08  
 Identities = 23/27 (85%), Positives = 24/27 (88%)



Query: 1 EKCVELMYTDGKWDRNCLQSRLAICEF 27  
EKCVELMYTDG WNR CLQ RLA+CEF  
Sbjct: 231 EKCVELMYTDGTWNRGCLQYRLAVCEF 257

☐ >gi|1172693|sp|P06908|PSPA\_CANFA Pulmonary surfactant-associated protein A precursor (PSAP)  
gi|164052|gb|AAA30887.1| pulmonary surfactant apoprotein  
Length = 248

Score = 58.2 bits (139), Expect = 3e-08  
Identities = 22/27 (81%), Positives = 26/27 (96%)

Query: 1 EKCVELMYTDGKWDRNCLQSRLAICEF 27  
E+CVEMMYTDG+WN++NCLQ RLAICEF  
Sbjct: 222 EQCVEMMYTDGQWNNKNCLQYRLAICEF 248

☐ >gi|71970|pir||LNDGPS pulmonary surfactant protein A precursor - dog  
Length = 248

Score = 58.2 bits (139), Expect = 3e-08  
Identities = 22/27 (81%), Positives = 26/27 (96%)

Query: 1 EKCVELMYTDGKWDRNCLQSRLAICEF 27  
E+CVEMMYTDG+WN++NCLQ RLAICEF  
Sbjct: 222 EQCVEMMYTDGQWNNKNCLQYRLAICEF 248

☐ >gi|8394337|ref|NP\_059025.1| ☒ pulmonary surfactant-associated glycoprotein A; Surfactant-associated protein 1 (pulmonary surfactant protein, SP-A); surfactant associated protein A [Rattus norvegicus]  
gi|57837|emb|CAA31573.1| ☒ pulmonary surfactant protein A (AA 1-248) [Rattus sp.]  
gi|206461|gb|AAA41973.1| ☒ pulmonary surfactant protein A (56 could be 29)  
Length = 248

Score = 58.2 bits (139), Expect = 4e-08  
Identities = 23/27 (85%), Positives = 24/27 (88%)

Query: 1 EKCVELMYTDGKWDRNCLQSRLAICEF 27  
EKCVELMYTDG WNR CLQ RLA+CEF  
Sbjct: 222 EKCVELMYTDGTWNRGCLQYRLAVCEF 248

☐ >gi|57839|emb|CAA31574.1| ☒ pulmonary surfactant protein A (AA 1-248) [Rattus sp.]  
Length = 248

Score = 58.2 bits (139), Expect = 4e-08  
Identities = 23/27 (85%), Positives = 24/27 (88%)

Query: 1 EKCVELMYTDGKWDRNCLQSRLAICEF 27  
EKCVELMYTDG WNR CLQ RLA+CEF  
Sbjct: 222 EKCVELMYTDGTWNRGCLQYRLAVCEF 248

☐ >gi|13346506|ref|NP\_008857.1| ☒ surfactant, pulmonary-associated protein A2 [Homo sapiens]  
gi|2119529|pir|I51921 pulmonary surfactant-associated protein A1 - human  
gi|338049|gb|AAA60319.1| ☒ pulmonary surfactant-associated protein SP-A  
Length = 248

Score = 58.2 bits (139), Expect = 4e-08  
Identities = 22/27 (81%), Positives = 25/27 (92%)

Query: 1 EKCVMYTDGKWDRNCLQSRLAICEF 27  
E+CVEMYTDG+WDRNCL SRL IC+F  
Sbjct: 222 EQCVEMYTDGQWDRNCLYSRLTICDF 248

☐ >gi|1709871|sp|P50403|PSPA\_CAVPO Pulmonary surfactant-associated protein A precursor (PSAP)  
gi|1101817|gb|AAB82952.1| pulmonary surfactant protein A [Cavia porcellus]  
Length = 247

Score = 57.4 bits (137), Expect = 6e-08  
Identities = 22/27 (81%), Positives = 23/27 (85%)

Query: 1 EKCVMYTDGKWDRNCLQSRLAICEF 27  
EKC EMY DG WND+NCLQSRL ICEF  
Sbjct: 221 EKCAEMYLDGTWWDKNCLQSRLTICEF 247

☐ >gi|6782434|gb|AAF28384.1|AF133668.1 lung surfactant protein A [Sus scrofa]  
Length = 116

Score = 57.4 bits (137), Expect = 6e-08  
Identities = 24/27 (88%), Positives = 25/27 (92%)

Query: 1 EKCVMYTDGKWDRNCLQSRLAICEF 27  
EKCVMYTDG+WDRNC Q RLAICEF  
Sbjct: 90 EKCVMYTDGQWDRNCQQYRLAICEF 116

☐ >gi|20070752|gb|AAH26229.1| Unknown (protein for MGC:22153) [Homo sapiens]  
Length = 117

Score = 55.8 bits (133), Expect = 2e-07  
Identities = 23/27 (85%), Positives = 25/27 (92%)

Query: 1 EKCVMYTDGKWDRNCLQSRLAICEF 27  
E+CVEMYTDG+WDRNCL SRL ICEF  
Sbjct: 91 EQCVEMYTDGQWDRNCLYSRLTICEF 117

☐ >gi|27805091|gb|AAO22991.1| surfactant, pulmonary-associated protein D [Homo sapiens]  
Length = 375

Score = 47.8 bits (112), Expect = 4e-05  
Identities = 17/27 (62%), Positives = 22/27 (81%)

Query: 1 EKCVEMYTDGKWNDNRNCLQSRLAICEF 27  
E CVE++T+GKWNDR C + RL +CEF  
Sbjct: 349 EDCVEIFTNGKWNDRACGEKRLVVCEF 375

☐ >gi|21361549|ref|NP\_003010.2| **L** surfactant, pulmonary-associated protein D; surf  
[Homo sapiens]  
gi|18490171|gb|AAH22318.1| **L** Unknown (protein for MGC:22626) [Homo sapiens]  
Length = 375

Score = 47.8 bits (112), Expect = 4e-05  
Identities = 17/27 (62%), Positives = 22/27 (81%)

Query: 1 EKCVEMYTDGKWNDNRNCLQSRLAICEF 27  
E CVE++T+GKWNDR C + RL +CEF  
Sbjct: 349 EDCVEIFTNGKWNDRACGEKRLVVCEF 375

☐ >gi|464486|sp|P35247|PSPD\_HUMAN **L** Pulmonary surfactant-associated protein D prec  
gi|346375|pir|A45225 pulmonary surfactant protein D precursor - human  
gi|292507|gb|AAB59450.1| **L** surfactant protein D  
Length = 375

Score = 47.8 bits (112), Expect = 4e-05  
Identities = 17/27 (62%), Positives = 22/27 (81%)

Query: 1 EKCVEMYTDGKWNDNRNCLQSRLAICEF 27  
E CVE++T+GKWNDR C + RL +CEF  
Sbjct: 349 EDCVEIFTNGKWNDRACGEKRLVVCEF 375

☐ >gi|34767|emb|CAA46152.1| **L** lung surfactant protein D [Homo sapiens]  
Length = 375

Score = 47.8 bits (112), Expect = 4e-05  
Identities = 17/27 (62%), Positives = 22/27 (81%)

Query: 1 EKCVEMYTDGKWNDNRNCLQSRLAICEF 27  
E CVE++T+GKWNDR C + RL +CEF  
Sbjct: 349 EDCVEIFTNGKWNDRACGEKRLVVCEF 375

☐ >gi|6573319|pdb|1B08|A **S** Chain A, Lung Surfactant Protein D (Sp-D) (Fragment)  
gi|6573320|pdb|1B08|B **S** Chain B, Lung Surfactant Protein D (Sp-D) (Fragment)  
gi|6573321|pdb|1B08|C **S** Chain C, Lung Surfactant Protein D (Sp-D) (Fragment)  
Length = 158

Score = 46.6 bits (109), Expect = 1e-04  
Identities = 17/27 (62%), Positives = 22/27 (81%)

Query: 1 EKCVMYTDGKWNDNRNCLQSRLAICEF 27  
 E CVE++T+GKWND C + RL +CEF  
 Sbjct: 132 EDCVEIFTNGKWNDRACGEKRLVVCEF 158

☐ >gi|6677921|ref|NP\_033186.1| ☒ surfactant associated protein D [Mus musculus]  
 gi|1709879|sp|P50404|PSPD\_MOUSE ☒ Pulmonary surfactant-associated protein D precu  
 gi|1129062|gb|AAA92021.1| ☒ surfactant protein D  
 gi|4877556|gb|AAD31380.1|AF047742.1 ☒ surfactant protein D precursor [Mus musculu  
 gi|6524992|gb|AAF15277.1| ☒ surfactant protein-D [Mus musculus]  
 gi|13277590|gb|AAH03705.1| ☒ Surfactant associated protein D [Mus musculus]  
 Length = 374

Score = 45.8 bits (107), Expect = 2e-04  
 Identities = 16/27 (59%), Positives = 22/27 (81%)

Query: 1 EKCVMYTDGKWNDNRNCLQSRLAICEF 27  
 E CVE++T+G+WND+ C + RL ICEF  
 Sbjct: 348 ENCVEIFTNGQWNDKACGEQRLVICEF 374

☐ >gi|7949133|ref|NP\_037010.1| ☒ surfactant, pulmonary-associated protein D; Pulmc  
 protein D [Rattus norvegicus]  
 gi|464487|sp|P35248|PSPD\_RAT PULMONARY SURFACTANT-ASSOCIATED PROTEIN D PRECURSOR  
 (CP4)  
 gi|285429|pir||A42046 surfactant protein D - rat  
 gi|207036|gb|AAA42170.1| ☒ primary translation product of SP-D  
 Length = 374

Score = 45.8 bits (107), Expect = 2e-04  
 Identities = 16/27 (59%), Positives = 22/27 (81%)

Query: 1 EKCVMYTDGKWNDNRNCLQSRLAICEF 27  
 E CVE++T+G+WND+ C + RL ICEF  
 Sbjct: 348 ENCVEIFTNGQWNDKACGEQRLVICEF 374

☐ >gi|27923966|sp|P42916|CL43\_BOVIN Collectin-43 precursor (CL-43) (43 kDa collect  
 gi|18252109|gb|AAL61855.1| ☒ 43kDa collectin precursor [Bos taurus]  
 gi|18252111|gb|AAL61856.1| 43kDa collectin precursor [Bos taurus]  
 Length = 321

Score = 45.1 bits (105), Expect = 3e-04  
 Identities = 16/27 (59%), Positives = 20/27 (74%)

Query: 1 EKCVMYTDGKWNDNRNCLQSRLAICEF 27  
 E C+E+Y+DG WND C + RL ICEF  
 Sbjct: 295 ENCLEIYSDGNWWDIECREERLVICEF 321

☐ >gi|15420996|gb|AAK97540.1|AF411083.1 surfactant protein A precursor [Gallus ga  
 Length = 222

Score = 44.7 bits (104), Expect = 4e-04  
Identities = 18/27 (66%), Positives = 20/27 (74%)

Query: 1 EKCVELMYTDGKWNDRNCLQSRLAICEF 27  
EKCVELMYTDG W DR C RL +CE+  
Sbjct: 196 EKCVELMYTDGNWKDRKCNLYRLTVCEY 222

☐ >gi|499385|emb|CAA53511.1| ☒ collectin-43 [Bos taurus]  
Length = 301

Score = 44.7 bits (104), Expect = 4e-04  
Identities = 16/27 (59%), Positives = 20/27 (74%)

Query: 1 EKCVELMYTDGKWNDRNCLQSRLAICEF 27  
E C+E+Y+DG WND C + RL ICEF  
Sbjct: 275 ENCLEIYSDGNWWDIECREERLVICEF 301

☐ >gi|1083017|pir||A53570 collectin-43 - bovine  
Length = 301

Score = 44.7 bits (104), Expect = 5e-04  
Identities = 16/27 (59%), Positives = 20/27 (74%)

Query: 1 EKCVELMYTDGKWNDRNCLQSRLAICEF 27  
E C+E+Y+DG WND C + RL ICEF  
Sbjct: 275 ENCLEIYSDGNWWDIECREERLVICEF 301

☐ >gi|29570599|emb|CAD69922.1| ☒ surfactant protein D [Bos taurus]  
Length = 369

Score = 44.3 bits (103), Expect = 5e-04  
Identities = 16/27 (59%), Positives = 21/27 (77%)

Query: 1 EKCVELMYTDGKWNDRNCLQSRLAICEF 27  
E CVE++ +GKWND+ C + RL ICEF  
Sbjct: 343 ENCVEIFPNGKWNDKVCGEQRLVICEF 369

☐ >gi|423283|pir||S33603 surfactant protein D - bovine  
Length = 369

Score = 44.3 bits (103), Expect = 5e-04  
Identities = 16/27 (59%), Positives = 21/27 (77%)

Query: 1 EKCVELMYTDGKWNDRNCLQSRLAICEF 27  
E CVE++ +GKWND+ C + RL ICEF  
Sbjct: 343 ENCVEIFPNGKWNDKVCGEQRLVICEF 369

☐ >gi|30794342|ref|NP\_851369.1| ☒ surfactant, pulmonary-associated protein D [Bos  
gi|464485|sp|P35246|PSPD\_BOVIN PULMONARY SURFACTANT-ASSOCIATED PROTEIN D PRECURSO  
gi|415939|emb|CAA53510.1| ☒ lung surfactant protein D [Bos taurus]  
Length = 369

Score = 44.3 bits (103), Expect = 5e-04  
Identities = 16/27 (59%), Positives = 21/27 (77%)

Query: 1 EKCVELMYTDGKWNDNRNCLQSRLAICEF 27  
E CVE++ +GKWND+ C + RL ICEF  
Sbjct: 343 ENCVEIFPNGKWNDKVCGEQRLVICEF 369

☐ >gi|21693526|gb|AAM75337.1|AF512356\_1 SFTPD [Macaca mulatta]  
Length = 88

Score = 44.3 bits (103), Expect = 5e-04  
Identities = 17/27 (62%), Positives = 22/27 (81%)

Query: 1 EKCVELMYTDGKWNDNRNCLQSRLAICEF 27  
E CVE++T+GKWNDR C + RL +CEF  
Sbjct: 62 EDCVEIFTNGKWNDRACGEKRLVVCEF 88

☐ >gi|6760482|gb|AAF22145.2|AF132496\_1 lung surfactant protein D precursor; SPD; S  
Length = 378

Score = 43.9 bits (102), Expect = 6e-04  
Identities = 16/27 (59%), Positives = 21/27 (77%)

Query: 1 EKCVELMYTDGKWNDNRNCLQSRLAICEF 27  
E CVE++ +GKWND+ C + RL ICEF  
Sbjct: 352 ENCVEIFPNGKWNDKACGELRLVICEF 378

☐ >gi|395268|emb|CAA50665.1| ☒ conglutinin [Bos taurus]  
Length = 371

Score = 42.0 bits (97), Expect = 0.003  
Identities = 16/27 (59%), Positives = 19/27 (70%)

Query: 1 EKCVELMYTDGKWNDNRNCLQSRLAICEF 27  
E CVE++ DGKWND C + L ICEF  
Sbjct: 345 ENCVEIFPDGKWNDVPCSKQLLVICEF 371

☐ >gi|461774|sp|P23805|CONG\_BOVIN CONGLUTININ PRECURSOR  
gi|346501|pir|JN0450 conglutinin precursor - bovine  
gi|285644|dbj|BAA03170.1| ☒ conglutinin [Bos taurus]  
gi|514256|gb|AAB60624.1| ☒ conglutinin precursor [Bos taurus]  
gi|22852250|dbj|BAA04983.2| ☒ conglutinin precursor [Bos taurus]  
Length = 371

Score = 42.0 bits (97), Expect = 0.003  
Identities = 16/27 (59%), Positives = 19/27 (70%)

Query: 1 EKCVEMYTDGKWNDNRNCLQSRLAICEF 27  
E CVE++ DGKWND C + L ICEF  
Sbjct: 345 ENCVEIFPDGKWNDVPCSKQLLVICEF 371

☐ >gi|31982388|ref|NP\_783630.2| ☒ L conglutinin 1 [Bos taurus]  
gi|7441637|pir||I45878 conglutinin - bovine  
gi|495013|gb|AAA20126.1| ☒ L conglutinin  
Length = 371

Score = 42.0 bits (97), Expect = 0.003  
Identities = 16/27 (59%), Positives = 19/27 (70%)

Query: 1 EKCVEMYTDGKWNDNRNCLQSRLAICEF 27  
E CVE++ DGKWND C + L ICEF  
Sbjct: 345 ENCVEIFPDGKWNDVPCSKQLLVICEF 371

☐ >gi|27923754|sp|Q8MHZ9|CL46\_BOVIN Collectin-46 precursor (CL-46) (46 kDa collect  
gi|21105685|gb|AAM34742.1|AF509589\_1 ☒ L 46-kDa collectin precursor [Bos taurus]  
gi|21105687|gb|AAM34743.1|AF509590\_1 ☒ L 46-kDa collectin precursor [Bos taurus]  
Length = 371

Score = 40.4 bits (93), Expect = 0.008  
Identities = 15/27 (55%), Positives = 19/27 (70%)

Query: 1 EKCVEMYTDGKWNDNRNCLQSRLAICEF 27  
E CV++Y +GKWND C + L ICEF  
Sbjct: 345 ENCVQIYREGKWNDVPCSEPLLVICEF 371

☐ >gi|227513|prf||1705239A mannan binding protein  
Length = 244

Score = 37.4 bits (85), Expect = 0.068  
Identities = 15/27 (55%), Positives = 18/27 (66%)

Query: 1 EKCVEMYTDGKWNDNRNCLQSRLAICEF 27  
E CV + T+GKWND C S L +CEF  
Sbjct: 216 ENCVVLLTNGKWNDVPCSDSFLVVCEF 242

☐ >gi|5566370|gb|AAD45377.1|AF164576\_1 mannose-binding lectin [Sus scrofa]  
Length = 240

Score = 37.0 bits (84), Expect = 0.075  
Identities = 15/27 (55%), Positives = 17/27 (62%)

Query: 1 EKCVEMYTDGKWNDNRNCLQSRLAICEF 27  
E CVE+ DGKWND C A+CEF

Sbjct: 212 EHCVEILKDGGKWNDFCSSLAVCEF 238

☐ >gi|126677|sp|P08661|MABC\_RAT Mannose-binding protein C precursor (MBP-C) (Mannose-binding protein) (RA-reactive factor P28A subunit) (RARF/P28A)  
gi|71974|pir|LNRTMC mannose-binding lectin C precursor - rat  
gi|56635|emb|CAA28687.1| ☒ MBP precursor (AA -18 to 226) [Rattus norvegicus]  
gi|357355|prf|1302194A mannan binding protein  
Length = 244

Score = 37.0 bits (84), Expect = 0.078  
Identities = 15/27 (55%), Positives = 18/27 (66%)

Query: 1 EKCVEYTDGKWNDRNCLQSRLAICEF 27  
E CV + T+GKWND C S L +CEF  
Sbjct: 216 ENCVVLLTNGKWNDDVPCSDSFLVVEF 242

Get selected sequences

Select all

Deselect all

Database: All non-redundant GenBank CDS  
translations+PDB+SwissProt+PIR+PRF  
Posted date: Jun 22, 2003 2:33 AM  
Number of letters in database: 468,339,122  
Number of sequences in database: 1,458,236

Lambda	K	H
0.324	0.137	0.477

Gapped

Lambda	K	H
0.267	0.0410	0.140

Matrix: BLOSUM62  
Gap Penalties: Existence: 11, Extension: 1  
Number of Hits to DB: 26,188,383  
Number of Sequences: 1458236  
Number of extensions: 349394  
Number of successful extensions: 1109  
Number of sequences better than 10.0: 100  
Number of HSP's better than 10.0 without gapping: 97  
Number of HSP's successfully gapped in prelim test: 26  
Number of HSP's that attempted gapping in prelim test: 1012  
Number of HSP's gapped (non-prelim): 123  
length of query: 27  
length of database: 468,339,122  
effective HSP length: 3  
effective length of query: 24  
effective length of database: 463,964,414  
effective search space: 11135145936  
effective search space used: 11135145936  
T: 11  
A: 40



X1: 15 ( 7.0 bits)  
X2: 38 (14.6 bits)  
X3: 64 (24.7 bits)  
S1: 40 (21.6 bits)  
S2: 67 (30.4 bits)